

## **REMARKS**

### **I. Introduction**

With the addition of new claims 40 and 41, claims 18 and 20 to 41 are pending in the present application. In view of the foregoing amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

### **II. Rejection of Claims 18, 20, and 25 Under 35 U.S.C. § 102(b)**

Claims 18, 20, and 25 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 6,999,021 ("Taylor, Jr. et al."). It is respectfully submitted that Taylor, Jr. et al. does not anticipate the present claims for at least the following reasons.

As an initial matter, it is respectfully submitted that Taylor, Jr. et al. does not constitute prior art against the present application. In this regard, Taylor, Jr. et al. issued on **February 14, 2006**, which is **after** the **December 15, 2004** international filing date of the present application. Withdrawal of this rejection is therefore respectfully requested. Notwithstanding the foregoing, it is respectfully submitted that Taylor, Jr. et al. does not anticipate the present claims for at least the following additional reasons.

Claim 18 relates to a hand-held short-range radar device for determining a location of objects enclosed in a medium. Claim 18 has been amended to recite that the at least one sensor is optimized on the basis of information obtained from the other sensors. Support for this amendment may be found, for example, in current claim 37; page 3, lines 15 to 23; page 5, lines 1 to 12; page 7, lines 18 to 28; and page 14, lines 13 to 30. By providing for a sensor that is optimized **on the basis of information obtained from the other sensors**, the device allows more accurate determination of the location of the enclosed objects, since the sensor can generate signals which can be optimized, and adapted to the specific measurement situation, based on the measurement results of the other sensors.

Taylor, Jr. et al. does not disclose, or even suggest, that at least one sensor is optimized on the basis of information obtained from the other sensors. Taylor, Jr. et al. describes a method and device for locating underground utilities by traversing the area with a plurality of underground utility sensors and obtaining area

location data to locate the area traversed. The sensor data and area location data are used to map the location of one or more utilities within the area traversed. According to Taylor, Jr. et al. the data is obtained from the sensors *simultaneously*; they are not optimized on the basis of information obtained from the other sensors. For example, Taylor, Jr. et al. state, in col. 3, lines 46 to 51:

By using transmitters with a wider range of available frequencies, each transmitted frequency being narrowband, many transmitters each transmitting a different narrowband frequency can be located in a survey area of interest so that data can be acquired from the different transmitters simultaneously.

As such, it is respectfully submitted that Taylor, Jr. et al. does not disclose, or even suggest, all of the features included in claim 18.

Consequently, it is respectfully submitted that Taylor, Jr. et al. does not anticipate claim 18, or claims 20 and 25 which depend from claim 18.

In view of all of the foregoing, withdrawal of this rejection is respectfully requested.

### **III. Rejection of Claims 21 to 24, 26, 27, 38, and 39 Under 35 U.S.C. § 103(a)**

Claims 21 to 24, 26, 27, 38, and 39 were rejected under 35 U.S.C. § 103(a) as unpatentable over Taylor, Jr. et al. It is respectfully submitted that Taylor, Jr. et al. does not render unpatentable the present claims for at least the following reasons.

Claims 21 to 24, 26, 27, and 38, ultimately depend from claim 18 and therefore include all of the features included in claim 18, and claim 39 ultimately depends from claim 28 and therefore include all of the features included in claim 28. As more fully set forth above, Taylor, Jr. et al. does not disclose, or even suggest, all of the features included in claim 18. Since claim 28 includes subject matter analogous to that of amended claim 18, Taylor, Jr. et al. does not disclose, or even suggest, all of the features included in claim 28 either. As such, any claim that depends from claims 18 or 28 is patentable over Taylor, Jr. et al.

In view of all of the foregoing, withdrawal of this rejection is respectfully requested.

#### IV. Rejection of Claims 28 to 37 Under 35 U.S.C. § 103(a)

Claims 28 to 37 were rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of U.S. Patent No. 5,680,048 (“Wollny”) and Taylor, Jr. et al. It is respectfully submitted that the combination of Wollny and Taylor, Jr. et al. does not render unpatentable the present claims for at least the following reasons.

Claim 28 relates to a method for determining a location of an object enclosed in a medium. Claim 28 has been amended to include subject matter analogous to that of amended claim 18 (*i.e.* the feature of the at least one sensor is optimized on the basis of information obtained from the other sensors.)

Wollny does not disclose, or even suggest, the feature of the at least one sensor is optimized on the basis of information obtained from the other sensors. Wollny describes a mine detection system including a wand (102), a housing mounted to the wand (102), a signal processor (201) supported by the wand (102), a ground penetrating radar system (305) in communication with the signal processor (201), and a metal detector system (302) in communication with the signal processor (201). Wollny makes no mention whatsoever of the at least one sensor is optimized on the basis of information obtained from the other sensors. Wollny merely discloses that the optimization of the signals takes place when the signals are processed:

“[t]he sensors' independent phenomenologies provide a synergism, **which when processed**, achieves an increase in probability of detection concurrent with a reduction in the false alarm rate for mines.” (column 3, lines 33 to 36 (emphasis added)).

Nowhere does Wollny disclose optimization on the basis of information obtained from the other sensors. As such, it is respectfully submitted that Wollny does not disclose, or even suggest, all of the features included in claim 28.

Consequently, it is respectfully submitted that that the combination of Wollny and Taylor, Jr. et al. does not render unpatentable claim 28, or claims 29 to 37, which depend from claim 28.

In view of all of the foregoing, withdrawal of this rejection is respectfully requested.

**V. New Claims 40 and 41**

New claims 40 and 41 have been added herein. It is respectfully submitted that new claims 40 and 41 add no new matter and are fully supported by the Specification.

Since claim 40 depends from claim 18, it is respectfully submitted that claim 40 is patentable over the references relied upon for at least the reasons more fully set forth above in support of the patentability of claim 18.

Since claim 41 depends from claim 28, it is respectfully submitted that claim 41 is patentable over the references relied upon for at least the reasons more fully set forth above in support of the patentability of claim 28.

**VI. Conclusion**

It is therefore respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

Dated: June 28, 2010

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